

|              |  |                |          |
|--------------|--|----------------|----------|
| <b>Title</b> | <b>Retrofit aluminium window joinery</b> |                |          |
| <b>Level</b> | <b>4</b>                                 | <b>Credits</b> | <b>2</b> |

|                |  |
|----------------|--|
| <b>Purpose</b> | <p>A person credited with this standard can:</p> <ul style="list-style-type: none"> <li>- demonstrate knowledge of compliance requirements for retrofitting aluminium window joinery;</li> <li>- prepare to retrofit aluminium window joinery;</li> <li>- retrofit aluminium window joinery; and</li> <li>- complete cleaning and storage requirements.</li> </ul> |
|----------------|--|

|                       |                               |
|-----------------------|-------------------------------|
| <b>Classification</b> | Construction Trades > Glazing |
|-----------------------|-------------------------------|

|                        |          |
|------------------------|----------|
| <b>Available grade</b> | Achieved |
|------------------------|----------|

### Guidance Information

#### 1 Assessment

This unit standard must be assessed under the supervision of a commercially competent glazing practitioner in workplace conditions that reflect:

- current health, safety, industry, and workplace requirements; and
- industry requirements for commercially acceptable timeframes.

Evidence generated for assessment against this standard must be verified by a person who has current expertise in the glazing trades and has had the opportunity to regularly observe the candidate in the workplace.

- 2 Installation must be completed without injury to personnel or damage to products and equipment. Personal protective equipment must be used to meet regulatory and worksite requirements.

#### 3 Definitions

*Personal protective equipment* includes – anything used or worn by a person (including clothing) to minimise risks to the person's health and safety.

*Worksite requirements* refer to instructions to staff on policy and procedures which are documented in manual format and are available in the workplace. These requirements include – company specifications and procedures, work instructions, manufacturer's specifications, product quality specifications, legislative requirements.

- 4 Evidence generated for assessment against this standard must reflect the best practice guidelines and principles specified in:
- AS/NZS 1170.0:2002. *Structural design actions – Part 0: General principles*;
  - AS/NZS 4666:2012. *Insulating glass units*;
  - NZS 3504:1979. *Specification for aluminium windows*;
  - NZS 3604:2011. *Timber-framed Buildings*;
  - NZS 4211:2008. *Specification for performance of windows*;
  - SNS TS 4211:2022. *Classification for the performance of windows*;
  - NZS 4223.3:2016. *Glazing in buildings – Part 3: Human impact safety requirements*.

AS/NZS and NZS standards are available at <http://www.standards.govt.nz>.

- 5 Reference
- New Zealand. Ministry of Business, Innovation & Employment – Hīkina Whakatutuki. (2019). *Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3: For New Zealand Building Code Clause E2 External Moisture*. Available at: <https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture>.

---

## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of compliance requirements for retrofitting aluminium window joinery.

#### Performance criteria

- 1.1 Explain the compliance requirements for retrofitting an aluminium window frame.
- Range external moisture, hazardous building materials, safety from falling, construction and demolition hazards, energy efficiency.
- 1.2 Explain issues that relate to the quality and performance of retrofitted aluminium window joinery.
- Range ability to accept the new insulated glass unit (IGU), compatibility of frame and components, structural integrity of the existing frame, weather tightness and drainage, friction stays; compatibility of frame and components – glazing tapes, gaskets, sealants, fastenings.
- 1.3 Describe the remedial actions for issues relating to the quality and performance of retrofitted aluminium window joinery.

### Outcome 2

Prepare to retrofit aluminium window joinery.

**Performance criteria**

- 2.1 Confirm the design requirements and job specifications with the customer before work begins.
- Range design details, dimensions, drawings, product information, site operational procedures.
- 2.2 Select glazing materials and sealants reflects to meet the job specifications.
- 2.3 Check and gather equipment, tools, and installation materials before work begins.
- 2.4 Undertake a site check for the installation.
- Range measurements, site floor levels and allowance for floor finishes, suitability and location of fixing provisions, surrounds are plumb and/or level, installation hazards or problems.
- 2.5 Plan the installation.
- Range cost, time, working drawings, engineering requirements, availability of materials, safety considerations.
- 2.6 Check the window frame.
- Range obstruction free, clean, dry, primed and/or sealed, compatible with glazing material and glazing system, weight loading.

**Outcome 3**

Retrofit aluminium window joinery.

**Performance criteria**

- 3.1 Confirm the glass meets the design requirements and job specifications.
- 3.2 Confirm the frame and beads meet the job specifications.
- 3.3 Retrofit aluminium window joinery to meet the job specification.
- Range remove existing glass, prepare rebates, fit glass, fix glass reassemble the frame.
- 3.4 Provide information to the customer about any relevant maintenance and warranty requirements.

**Outcome 4**

Complete cleaning and storage requirements.

**Performance criteria**

- 4.1 Clean and store tools and plant used to retrofit aluminium window joinery.
- Range plant may include – any machinery, vehicle, equipment (including personal protective equipment), used in a glazing operation.
- 4.2 Clean the retrofitted aluminium joinery and clear and clean the work area.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

| Process      | Version | Date             | Last Date for Assessment |
|--------------|---------|------------------|--------------------------|
| Registration | 1       | 24 November 2022 | 31 December 2025         |
| Review       | 2       | 28 November 2024 | 31 December 2025         |

**Consent and Moderation Requirements (CMR) reference**

0048

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.